THE
VETERINARY JOURNAL

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NOVEMBER, 1920.

THE LATE Mr. JOHN MALCOLM, F.R.C.V.S., F.H.A.S.

Practitioners and students alike will have read with regret of the great loss the veterinary profession has sustained by the sudden death of Mr. John Malcolm. A practical man, he was one of those whose principle had been to "act," and not merely "talk." His quiet and genial manner gave confidence at once, and marked him out as a man who had something behind him, and the diffident or nervous student when, in front of Mr. Malcolm at the examination table, was at once at his ease. The student, in particular, will remember his name with gratitude. For the practitioner, his patient investigation into the treatment of Canker, and his researches into the economics of horse feeding have become standard treatises, and bear the hall-mark of sound, practical knowledge, gained by actual personal experience.

For the profession itself, however, the chief thing in which Malcolm was pre-eminent was the organisation of Municipal Veterinary Work, and in this he was the pioneer. The city of Birmingham, whose Veterinary Inspector he was for many years, soon found his worth, and to his care was entrusted the whole of the Borough Municipal duties, which by right should be allotted to a duly qualified veterinary surgeon. It was never necessary, after once he had become established, for Mr. Malcolm to fight for his rights. They were handed over to him as a matter of course ; and the economy and pecuniary saving due to his advice and management was alluded to and recognised in the Council on more than one occasion. That he had, too, the confidence of the Council of the Royal College of Veterinary Surgeons is shown by the fact that he had for many years been an examiner

for both the Membership and the Fellowship Diplomas, whilst, by the unanimous vote of the National Veterinary Association, he had been elected Secretary. Had he lived a few weeks longer his retirement on pension would have taken place, and his intention then was to have devoted his time to the affairs of the National Veterinary Medical Association and the editorship of their recently-purchased journal. His unexpected demise leaves a blank in our profession which it will be difficult to fill, and the sympathy of the profession is extended to his bereaved family.

Editorials.

COMPETITIVE TENDERS FOR PROFESSIONAL SERVICES.

A RESOLUTION under the above heading, brought before the Council of the Royal College of Veterinary Surgeons at their last meeting, gives much food for reflection, and exposes a custom which ought, when considered from every point of view, to be put a stop to. Brought forward by Mr. Howard it reads: "That in the opinion of this Council the practice of certain public bodies in advertising veterinary appointments as open to tender, is opposed to public interests and ought to be abandoned. Furthermore, the Council is of opinion that members of the profession should decline to apply for appointments offered on such conditions." The motion was carried unanimously and it now remains for the profession to loyally support the Council's wishes. "Tendering" is a term which can only be applied legitimately to trade functions and should never be submitted to by members of a profession. Its cut-throat policy was well illustrated by the instance read from a Lancashire newspaper by Mr. Locke, in which a veterinary surgeon was stated to be in complete veterinary attendance upon a Corporation stud of 98 horses (divided up between stables at four different places) for £30 per annum. And this in 1921, with the present value of the sovereign! Such fees are a disgrace and lower the profession inestimably in the eyes of the public It is well that the matter has been taken up, and it is to be hoped that any others of the same character will be brought to the notice of the Council.

THE INDIAN CIVIL VETERINARY SERVICE.

ON a further page we publish an article by "Anglo-Indian," also the copy of a Memorial which has been forwarded by the members of the Indian Civil Veterinary Service to the Secretary of State for India, which speaks for itself in regard

to the financial position in which its members find themselves at the present rate of exchange and the low purchasing power of money. Comment upon it, except to wish the petitioners a successful issue and to bring before the general body of the profession the difficulties expressed therein (as a guide to those of our younger men who contemplate entering this Service) would at the present time, perhaps, be prejudicial. The high authorities who will consider it know well the value of the Indian Civil Veterinary Officers for the welfare of the agriculture and the stock of the country; they know well, too, the present financial aspect and the necessity for the maintenance of the white man's status. Whilst wishing our *confrères* a favourable response to their demands, we are sure that the authorities will consider the question from every point of view and adjudicate fairly. Our new graduates will watch the result with interest, and any intending candidates at the present moment will do well to be circumspect and move with caution. Let him weigh carefully the article by "Anglo-Indian" in the present issue, as it is written by one who knows the I.C.V.D. conditions "from A to Z."

Clinical Cases.

SARIA.

By H. H. CURSON, M.R.C.V.S.,
Grahamstown.

THE above term is applied by the Wankonde natives to a peculiar form of dermatitis affecting cattle in their country.

This dermatitis is usually of a chronic eczematous nature, and is apparently different, in many of its characters, from other forms of tropical dermatitis, such as described by:—

(1) Van Saceghem, of the Belgian Congo;
(2) Armfield, of Northern Rhodesia;
(3) The dermatitis accompanying or following Demodectic Mange, described by Griffiths, of Nyassaland, and
(4) The dermatitis sometimes following rinderpest.

Before proceeding to describe the condition some information, with regard to the Wankonde and their country would not be out of place.

Geography.—Unkonde (*i.e.*, the country of the Wankonde) embraces the area of country situated at the north end of Lake Nyassa (in late German East Africa) in the district of New Langenburg. It is bounded on the east by the formidable mountain barrier—the Livingstone

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Mountains ; on the north by the Poroto Hills, Igale Mountains, and Malila Plateau ; and on the west by the Songwe River, the old boundary line between British territory—Nyassaland—and German territory. There are Wankonde living on the Nyassaland side of the Songwe, but, owing to rinderpest, their cattle had been removed south of the Stevenson Road—twenty miles distant—to form a cattle free belt. I did not see these cattle, but natives informed me that " Saria " existed in their herds.

Native Cattle Management.—The cattle are taken to graze early in the morning, and brought back to be milked at midday. They then return to the veld, and are fetched again in the evening. One interesting fact is that the cattle are housed at night in the same dwelling as the owner, there being only a partition to separate the owners from their stock, each beast being tied side by side to posts which are fixed into the ground. The natives are splendid cattle managers, and take every possible care of their stock, e.g., bedding is often provided, especially during the wet season ; the cattle are brought in during a storm and ticks are usually pulled off. No other tribes were observed to take such an interest in their stock.

Cause.—The direct cause cannot be stated definitely. Microscopic examination of the serum exudate and affected skin area may show cocci, but this cannot be considered diagnostic, as cocci may be found in scrapings from healthy skin. In a few cases organisms resembling *Bacillus necrosis* were seen, the filaments showing darkly staining specks in a lighter background when stained with methylene blue.

Predisposing causes are :—

(1) Cattle with unpigmented skin ;

(2) Age ; calves and young cattle up to three years are seldom affected.

Other interesting details are :—

(1) Personally, I have never seen a bull with the complaint. Natives stated that it was seldom that a bull was affected.

(2) Cattle are housed at nights, the house, as can be readily understood, being filled with smoke. Other tribes, e.g., Wanyika, keep their cattle out of doors, and of 7,940 Wanyika cattle that passed through the rinderpest inoculation station at Mbosi in 1918, not a single one showed " Saria." At this station only one beast was affected, and this came, along with thirty-three others, from the Malila country on the borders of Unkonde.

(3) The cattle usually affected are " good milkers," and in this connection it is interesting to mention that the natives prefer these " Saria " animals. When a father is presenting cattle to his son for the purchase of a wife, he will not part with a " Saria " animal if he has one,

but will keep it for his own use. We know ourselves that a fine skin is generally associated with a good milking strain, and it is usually this type of skin that is predisposed to inflammation and other pathological conditions.

With reference to the first predisposing cause, *i.e.*, non-pigmentation of the skin, let us see how the skin is sometimes affected when exposed to the following conditions :—

(a) *Extreme heat.*—In the Karroo, white pigs suffer from a dermatitis apparently due to the sun. If in the shade, and allowed access to wallowing ponds, this condition rapidly improves.

It cannot be that heat only has this effect in "Saria," for it is prevalent from the shores of Lake Nyasa (1,700 ft.) to the slopes of Mount Rungwe (5,000 ft.), where the climate is temperate and more pleasant than in parts of the Karroo.

(b) *Fagopyrismus.*—Caused by feeding on buckwheat (polygonum). Here it is said exposure is not necessary directly the plant has been fed, but it may follow some weeks after plentiful feeding. Lesions appear chiefly about the head, and they take the form of an erythema, slight swelling, itching, and finally desquamation. In severe cases the exudation is copious, appetite is interefered with, and brain symptoms may result ; but recovery should take place if the animal is properly cared for.

(c) *Trefoil dermatitis.*—Due to feeding on *Medicago denticulata*, and being exposed to the *direct rays* of the sun. Characterised by "erythema and inflammatory œdema of the skin with exudation," *i.e.*, unpigmented portion of skin.

(d) *Clover dermatitis.*—Has been described in Europe as affecting horses, cattle and sheep. The ingestion of *Trifolium hybridum* or *Trifolium pratense* is supposed to be the cause of symptoms somewhat resembling those described under trefoil dermatitis.

(e) *St. John's Wort.*—In America hypericum is stated to produce the same form of dermatitis as is caused by the eating of trefoil and subsequent exposure to the sun.

(f) *Geeldikkop in South Africa.*—(Dutch equivalent for yellow thick head).—In the Karroo sheep are sometimes affected by a peculiar disease evidently of the same nature as the above, especially as described under *fagopyrismus*. The head swells, this being due to a yellow fluid accumulating under the skin and the ears become inflamed. A certain plant, *Tribulus terristris*, called by the Dutch "dubbeltje doorn," is held responsible, for, if sheep are removed from a "dubbeltje" grazing area, the disease disappears.

(g) *Vuurziekte*—(Dutch equivalent for Firesickness) is a term applied generally by South African farmers to any dermatitis affecting sheep, goats or cattle, and of which the cause is obscure, e.g., " witroes " in Angora kids, an eczematous condition about the head and neck, and affecting animals in a poor condition, and suffering from wire-worm. Cattle sometimes suffer from a dermatitis of unpigmented skin, but, as the cases are so few, they hardly attract attention. More often the Friesland or Cape cow shows a plain erythema of the white skin, but this seldom develops into anything approaching a dermatitis. Such conditions would be called " Vuurziekte " by farmers.

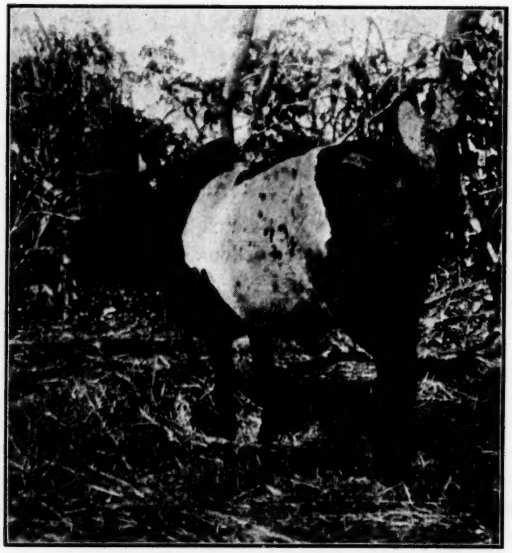

FIG. 1.

THIS ANIMAL HAD BEEN ROUGHLY HANDLED DURING RINDERPEST INOCULATION AND THE TWO MARKS SEEN ARE THE RESULT OF BLOWS.

The veld in Unkonde is " sweet," and contains a large proportion of leguminous plants, including trifolium and medicago ; also species of Rumex (dock), but from observations it was noticed that the latter were never eaten.

As far as could be seen the veld in Unyika and Ukinga was very much like that in Unkonde ; but where Unkonde differs from the other two is in regard to rainfall ; it is very heavy, exceeding 100 inches a

year, and it may be that this great moisture is favourable to the growth of certain moulds or bacteria or has some influence on vegetation.

"Saria" Affecting a Cow from the Highlands.
(Malila Plateau).

Disease: Course of Symptoms.—The first symptoms is an erythema, usually at the back of the base of the hump (see Fig. 1); although it may occur at the middle of the back—such as may be seen in the black and white cow of Fig. 2. There is heat and the area is a little painful. Since it is only unpigmented skin that is involved, redness is well marked. It is always the top of the back or loins, or the back of the hump that first becomes affected, and then later the sides, along the shoulders, flanks or quarters.

After a varying period the coat either becomes very thin, owing to the hairs falling out, or minute drops of serous exudate appear, which mat several hairs together, and a crust is formed, which, if pulled or removed by the beast rubbing itself, causes the hairs to be shed, leaving often small raw patches, which become covered with a *thin* dark brown scab. This scab in time is shed, leaving a dull red scar. Sometimes the complaint remains localised, but the inflammation persists and the skin becomes thickened, and the hairs that remain are short and do not lie flat. The herd boys are always cautioned by the elders not to strike "Saria" cattle with a stick, for, as is seen in Fig. 1, the slightest blow leads to the skin being removed, bleeding, and the formation of a wound. At other times there is an extension of the dermatitis along the unpigmented areas. In Wankonde cattle it is seldom seen that poor condition aggravates the malady, neither in severe cases are systemic symptoms, e.g., decrease in milk yield noticed, nor does death result from even a general infection. The white cow in Fig. 2 was affected very badly along the hump and the back, and the disease was encroaching along the sides, but her condition remained excellent. The black round spots seen in the photo are pigmented areas (black) which are remaining healthy. In old cases the skin becomes thickened and wrinkled, and the coat is thin, rough and dull.

"Saria" Affecting Cows from Lake Shore.
(Ipiana).

In many cases where the irritation is not so severe, and the beast is not struck or injured in any way, e.g., by poking, the inflammation subsides, serum no longer exudes, and new hair makes its appearance. There always remains, however, a thickened condition of the skin, which can easily be felt by manipulation. Season does not appear to

have any influence with regard to the severity of the lesions, and cases are to be seen at any time of the year.

It does not appear that "Saria" is contagious in any way, for healthy animals may be housed with infected animals for years and not become affected. It has been endeavoured by rough experiments to transmit the complaint by rubbing serum and scrapings into wounds, but without success; not does it appear to be hereditary.

It is the rule to find about five per cent. of the cattle affected; this percentage holds good for any part of the country, whether in the highlands or along the lake shore.

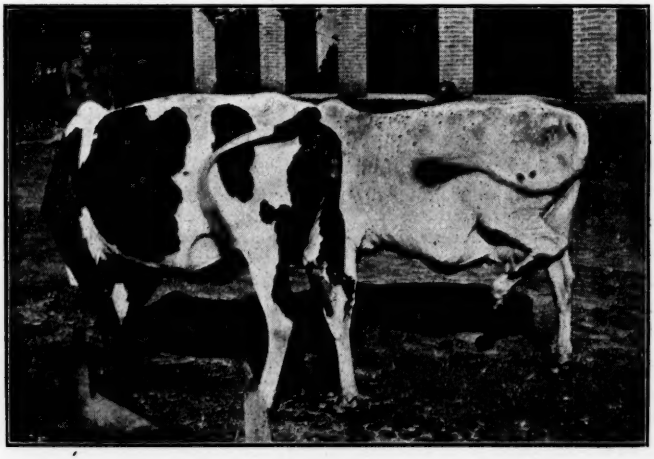

FIG. 2.

THE DERMATITIS COMMENCED IN THE BLACK AND WHITE COW IN THE MIDDLE OF THE BACK. THE WHITE COW IS SEVERELY AFFECTED ALONG THE HUMP, BACK AND LOINS AND THE DERMATITIS IS EXTENDING DOWN THE SHOULDERS, FLANKS AND HIND-QUARTERS, LEAVING UNAFFECTED THE BLACK PIGMENTED SPOTS.

"RINDERPEST" SKIN LESIONS.

Differential Diagnosis.—(1.) Van Saceghem's description of Congo dermatitis:—As I have seen no photo of this condition, and can only judge from the information conveyed by the summary appearing in *The Tropical Veterinary Bulletin* for June, 1917, it is difficult to form an opinion.

(a) It is claimed that the causal organism, the *Dermatophilus congolensis* is a filamentous bacterium, which is sometimes branched, *i.e.*, Streptothrix, and sometimes represented as cocci. The *B. necrosis*, which is found in many pathological

conditions, e.g., necrosis of the mouths of sucking pigs, and which was probably present in a few of the scrapings examined, does not branch (leptothrix).

(b) That the disease may be identified by the formation of crusts over which the hairs are erect. This is the same with "Saria," the crusts being dried serum.

(c) Rapid spread.

(d) Young and adult animals affected similarly.

(e) Acute only during wet seasons.

In these last three characters "Saria" is in no way similar.

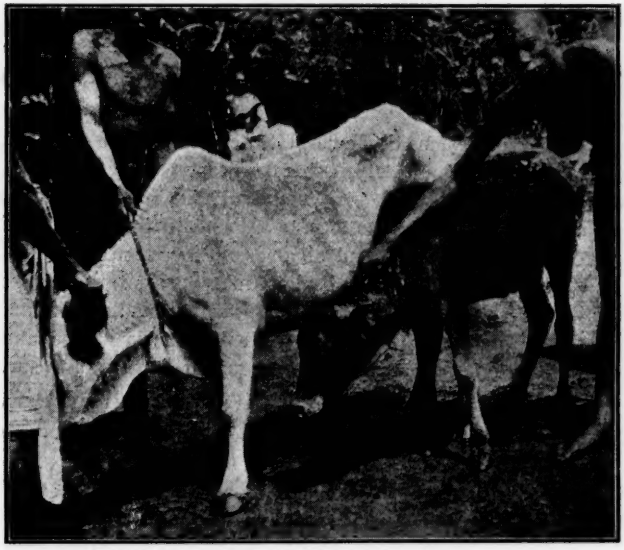

FIG. 3.

THE DARK RED CALF WAS SUFFERING VERY BADLY AND BLOOD WAS EXUDING FROM THE FISSURES ABOUT THE SHOULDERS AND PRECRURAL REGIONS DURING MOVEMENT.

(f) Lastly, apparently Congo dermatitis may affect black pigmented skin, whereas "Saria" was not observed by me to do so.

(II.) Armfield, of Northern Rhodesia, in *The Veterinary Record* of January 5, 1918, describes a dermatitis showing :—

(a) "Numerous small wart-like processes, about ¼ inch in diameter, and if these are pulled off small hollows are left in the skin." In the number of *The Tropical Veterinary Bulletin* for June, 1917, Van Saceghem describes tumours in a heifer, and, from

the context, he evidently described these occurring as a complication of Congo dermatitis. It may be stated that this is not the case in " Saria."

(b) " Clean animals herded for several weeks with diseased animals become affected."

" Saria " differs from the above in both respects and the excellent photos of Mr. Armfield (seen in *The Veterinary Record* of January 5, 1918) appear to show different lesions. Scabs in " Saria " are only seen as a result of removal of skin by blows or injuries, and wart-like growths are not present, so that it is difficult to obtain photos that would show anything but a loss of hair.

(III.) In the dermatitis accompanying demodectic mange there are nodules in the skin, and if their contents are examined by a microscope, it is generally possible to find the *D. folliculorum.*

(IV.) The skin lesions of rinderpest are present a long while after the other symptoms have ceased, but the intense scouring has left the beast weak and emaciated. As will be seen in Fig. 3, the lesions, which in severe cases take the form of ulcers with the shedding of the hair around them, may extend all over the head, neck, trunk and limbs. When scabs form, there being so many present, the skin shows cracks, through which the blood may appear if animal is driven about quickly. In some cases small areas of skin become dry like parchment, separate from the surrounding tissue, and fall off, leaving a raw surface.

The literature on tropical skin diseases of animals is unfortunately scanty, and there remain many problems still to be solved. If only veterinary officers would record their experiences and investigations, however humble they may be, much of the uncertainty that at present prevails would be cleared up. This is an attempt in this direction, and it is hoped veterinarians who have been in the tropics will be persuaded to describe their observations.

Literature :—

(a) " Trefoil Dermatitis," by Dodd ; *Journal of Comparative Pathology and Therapeutics,* March, 1916.

(b) *Tropical Veterinary Bulletin,* June, 1917.

(c) *Veterinary Record,* January 5, 1918.

(d) *Veterinary Record,* May 18, 1918.

P.S. Since writing the above, I have read with great interest in THE VETERINARY JOURNAL of June, 1920, the article by Hornby of Northern Rhodesia on " A Contagious Impetigo of Cattle." Until the *Dermatophilus congolensis* is demonstrated in cases of " Saria " it does not seem possible to consider these two diseases as being identical.

TURTLES.

By E. MORGAN, M.R.C.V.S., D.V.H.,
Puerto Cabello.

I WONDER if those fortunate ones who are often guests at some lavish dinners, as well as those "would-be guests" who attempt to gratify themselves by reading the "menu" or list of such feasts in a morning paper, are all quite clear in their minds as to what one of the first words on the list means, viz., *Turtle*, in the familar item *Turtle-soup*. Does this turtle mean bird, fish, mammal, reptile or herbivora? Folk are apt, when hungry, to swallow the first courses without asking questions, whereas lower down the menu scale they get more inquisitive, and undoubtedly some of them would frown at this stage should the waiter be familiar with zoological terms and offer them reptile-soup or extract of reptile. After looking at such things from several points of view, we must admit that there is something in a name; and I doubt if turtle-soup by the name of reptile-soup would taste as sweet to those of delicate palates.

In these few scattered notes it is not my intention to deal with the sea-turtle of South America from a zoological point of view, but just to mention a few points as I have seen them myself, and which might be useful to students of meat inspection. The word turtle in Saxon meant turtle-dove, a bird, and not a reptile, and the English word had the same signification until the discovery of America, when sailors gave the name of turtle or turkle to the marine chelonians of the West Indies—(*New. Am. Cyc.*).

The term was probably given to this reptile on account of its affection for its mate in pairing time, as in such respects it resembles the turtle-dove, which is celebrated for the constancy of its affection and is regarded as the most perfect emblem of connubial attachment.

The turtle which concerns us here is a marine reptile, which in shape is more or less oval and flattened from above and enclosed in a case formed by two scaly shields or shells, and having horny jaws in the place of teeth. The dorsal shield is called the "carapax," and the ventral the "plastron." The former is more convex and of darker colour than the latter. The only parts exposed outside the hard shells are the head and neck, the four wing-like limbs or flappers and the short conical tail. The term tortoise is restricted to the land form. Yet the shell of one class of sea-turtles called "carey," or hawk's-bill turtle (*Chelonia imbricata*), is often referred to as tortoise-shell, and is of high commercial value for making combs, etc. There are also fresh water turtles.

Little does the veterinary student think, whilst studying the blood circulation, etc., of these reptiles, that he might some day be called to examine thousands of these herbivorous sea-reptiles, whose flesh and eggs are esteemed a great delicacy and highly valued for food.

These are found along the coast-line of some of the South American republics as well as the West Indies. They live most of the time in the sea, but being amphibious they often come up to the surface to breathe. During the laying seasons they come ashore, and also often during the mating season, but not always. They lay their eggs in a fairly deep hole which they scoop in the sand. Their diet consists chiefly of fine green sea-grass or weed. Yet when kept in captivity, such as sea-water tanks, they will eat coarser grass, hence my reason for referring to them as herbivorous sea-reptiles. They will also eat meat, fish and bread. Great care is needed that the fish is clear of bones, as they are apt to get choked with fish bones. An average sized turtle when kept in these tanks and properly fed will increase in weight at the rate of about five pounds a month. They are kept in such places at certain periods, when there is super-abundance in the market, such as is the case during the laying season, when they are closely watched in order to know the exact spot where they hide their eggs, and the turtles themselves are often captured at the same time. They usually lay their eggs during the Autumn months, especially during the course of Autumn winds, and also in February. It is estimated that each turtle lays about 800 eggs during the year. They are unlike birds laying only one egg a day. They lay 200 and more in a short time in a hole, which is at least one foot deep, and then immediately cover them with sand, so that neither man nor beast can discover them except by chance. It is said that once outside air gets in contact with the eggs after they are covered by the turtle they will never hatch again; this stands to reason, the same, more or less, as the case of bird's eggs getting cooled below a certain temperature after the bird has commenced to sit on them. The eggs are round in shape and there is absence of the hard shell. The turtles are caught in great quantities in the sea by means of nets. Also, as already stated, sometimes on shore. They copulate on land as well as in the sea. Once the male and female copulate, the male adheres to the female for at least forty days, hence the reason that they are so easily caught whilst ashore during the mating season. As far as the length of time of the copulating process goes on, they are not bad imitations of the elephants. The turtle-hunter always captures the female first, then he easily gets the male, as the male is either too weak to move, or, as it is believed, his devoted attachment to her is too strong. During the mating season they are often

seen floating on the waves, and appear at first sight as if only one turtle is present, as only the dorsal shell of each is exposed. When on dry land all that is necessary for the turtle-catchers to do is to capsize them, so that their wing-like flappers will not touch the ground, then they cannot escape from the spot. Turtles can be kept alive outside the water for seventy days if their eyes are sprinkled once a while with a little salt water, otherwise they will die in about thirty days, as the tears which are discharged form an opacity over the eyes unless water is sprinkled over them.

When the young ones are hatched they soon find the sea water, but remain in shallow water until they grow larger in size. Apparently no other living thing has more enemies than the innocent little baby turtles—even their own parents act as cannibals and devour them whenever they meet them. There is a bird along these coasts which is called in Spanish "Tijereta" (Scissors tail). A peculiar bird in shape and habits. It is the size, more or less, of a crow, and possesses very long wings. I am told that the bird never drops on the ground except by accident; sleeps at night on branches of trees along the coast. It is interesting the way this bird ploughs the waves with its beak in the water catching small fish, and tail and wings playing upright in the air. The reason that he never takes a rest except on the branch of a tree is because he cannot fly off the ground. Although this bird does not eat the flesh of young turtles, even when they are ashore, yet he drops like a dart and kills them wherever he gets an opportunity. The jaguar (South American tiger) is one of the worst enemies to the fully grown turtles; he hides and watches for hours so as to find out where the turtle lays her eggs, and of the two he prefers the eggs. Nevertheless, in spite of all their enemies, a great number of turtles survive.

The live weight of the turtles killed at the Puerto Cabello packing plant varies from 130 to 250 lbs. As the yield in weight of some of the parts might interest someone, I shall quote one out of many tests which I have made:—

Live weight of turtle ..	193 lbs.	Gullet, intestines, etc., as far as cloacal orifice, including ovaries, etc.	34½ lbs.
The different parts gave following yield, viz.:		Blood	12 ,,
Dorsal shell (carapax)	28 lbs.	Sanguineous fluid which is always deposited inside	4 ,,
Ventral shell (plastron)	12½ ,,		
Heart	½ lb.		
Liver	3 lbs.		
Lungs	2 ,,		
Meat	95 ,,	Total ..	191½ lbs.

There is a difference of 1½ lbs. between live and dead weight ; this is due to small clots of blood and fat being washed away whilst using the fresh water hose to clean the inside after removing the internal organs.

The turtles are bled the same way as sheep are bled, but there is a vast difference between the two, as depriving turtles of their blood is not sufficient to prevent movements of the body. They even move their jaws and wing-like flappers after all the internal organs are removed. Their hearts will beat inside the body cavity when no more blood can be drained from their blood vessels. The small heart is composed of very thick muscle. They die a little sooner if stunned or pithed before being bled, but they do not seem to bleed so freely. The natives here, some of them, believe that a turtle will never die until sunset. I was interested to find this out, so we arranged one day to get a few killed in the late afternoon, but this made no difference, and the movements still continued after sunset, although deprived as usual of blood and internal organs. I might here mention that all the meat is left intact to the dorsal shell, as well as the head and neck and flappers ; then the ventral shell, after they are properly washed, is placed back in its normal position, this of course had to be removed in the first place in order to remove the internal organs and to clean the inside. The turtles appear in the freezing rooms as if all the parts are intact, nevertheless they are minus the internal organs, with the exception of liver and heart.

The length of the alimentary canal, including œsophagus, was 66 ft. It is of almost the same diameter throughout, and where one expects to find a fair-sized stomach there is only a kind of diverticulum or bend. The first portion of the œsophagus possesses numerous large papillæ on its mucous membrane, similar to those on the cheeks of ruminants. The lumen of the intestine is nearly twice the size of the small intestine of cattle, and the density of the intestinal wall is much thicker and harder. Unless the turtles have been kept a long time without food, one finds the intestinal canal throughout full of green food, and it is most interesting to follow it for 66 ft. to see the gradual stages of digestion.

The fat is of a dark-greyish brown colour, which one finds in a layer on the inner surface of the shells. Also, when the turtles are in very good condition, one finds a fairly thick layer of omental fat, which is of a yellowish colour.

Although these turtles live most of their time in the sea, yet they are not always free from abnormal growths. The other day I found a tumour weighing about half a pound inside the axilla. I also often find papillomatous growths in the neck regions about the size of

average hen's eggs. They do not indulge in tea, beer or whiskey drinking, neither do they suffer from the want of fresh sea-air, yet they are not always exempt from disease. Perhaps being tossed by the waves against rocks, or being injured when young, might be a direct or indirect cause of such growths.

AN INTERESTING CASE OF ABNORMAL LACTATION.

By FREDERICK HOBDAY, F.R.C.V.S.,
London.

Some few years ago I had an interesting patient in the shape of a prize-bred female goat, who had given milk continuously for two years, without having been served a second time ; and her progeny (then two years old) who had never been mated at all, had been giving milk in considerable quantity for over nine months.

In canine practice one frequently meets with instances where a bitch will have sufficient milk to bring up a puppy without having puppies of her own or even without having been mated, and the following instance recently came under my notice :—

A wire-haired terrier bitch had a litter of six valuable pups, of which two were removed and fed by hand for one night, as it was thought that the six would be too many for the mother. These two were placed in a cigar-box filled with cotton wool and put near a fire. A fox-terrier bitch, about 5 years old, who had had a litter some two years previously, saw them there and immediately assumed guardianship over them. Much to her delight they were placed in a large box and she was allowed to " mother " them. At this time (11.0 a.m.) she had no appearance whatever of milk in her glands, but they nestled contentedly against her and on the next morning she had enlarged mammæ and a full flow of milk, and she afterwards brought them up successfully.

PRESENCE OF *GASTROPHILUS EQUI* IN THE DOG.

By Capt. J. R. HODGKINS, D.S.O., F.R.C.V.S.,
Secunderabad, India.

An Aberdeen terrier, 18 months' old was brought for advice regarding a paralysis of the hindquarters that had been in existence for a day. He could not rise from the ground. A careful examination allayed any suspicion of Rabies, and a diagnosis was made of *Stercoremia.*

Intestinal lavage was carried out, first with warm soapy water and finally with cold water.

With the first vomition, three larvæ of the *Œstridæ* were brought forth.

On examination these were found to be larvæ of *Gastrophilus equi.*

They were quite blanched ; two were mature and one was much smaller.

No history of the dog's having been fed with material that could have contained these larvæ was available. It seems unlikely that they could have come to maturity in the dog. In all probability they were ingested.

An interesting point was that the dog, on being removed from the table, had lost his paralysis and walked home.

For accounts of larvæ of the *Œstridæ* in carnivorous animals, see " Parasites and Parasitic Diseases " (Neumann : 1905, page 314.)

CHRONIC LAMINITIS OF CATTLE.

By H. H. CURSON, M.R.C.V.S.,
Grahamstown.

On May 31, 1918, while at Mbosi in connection with inoculation of Wanyika cattle for rinderpest, a native, belonging to Chief Msangawale, brought in eight head of cattle for inoculation. This native had come from the extreme N.E. portion of Msangawale's territory bordering on Chief Mweni Iwungu's territory, South of Lake Rukwa, and had taken 3½ days to bring his cattle, the distance being about 40–50 miles. Of these eight beasts, two were old cows, three were young cows (two having calves), one yearling bull, and two calves about 4–6 months. The interesting feature of these cattle was that the five oldest were suffering from chronic laminitis and the bull and two calves were quite normal.

On interrogating the owner it was learned that the two old cows had been so affected for many years, whereas the young cows (about 4–5 years old) had only within the last two years developed this abnormal condition. He also stated that he was sure the bull and calves would later become affected and that his journey had been slow as the cattle had been handicapped by the deformity. His reply to a question asked about other cattle in his country being similarly affected, was that there were, and no one knew or had even wondered what the cause was. It might be stated here that cattle from this area had been inoculated at other rinderpest stations, but no veterinary officer had remarked on this complaint.

I tried to get some information from the owner regarding the onset of this disease, but all he could tell me was that at first the animals became very lame, had no milk, and then had to lie down. Later on, they got up with difficulty and walked stiffly about on their heels, with the result that the toes became long. There were laminations or rings on the hoof, but pain was absent, and the only difficulty in walking was apparently due to mechanical interference owing to overgrowth of

the toes. As the animals were being driven away quickly, the clumsy feet striking the stony ground gave out a loud tapping sound.

I was, unfortunately, not in a position to take photographs of these animals, but on looking up Sir Arnold Theiler's articles on "The Stijfziekte of South Africa," in the *Union Agricultural Journal* of June and July, 1912, a splendid photo in the July issue (page 2), showing an exact reproduction of the condition is to be seen.

In South Africa, Sir Arnold Theiler has proved that *Crotolaria burkeana*, a leguminous plant, is responsible for this condition, but whether *C. burkeana* is present in the Wanyika country I cannot say. The veldt is rich in leguminous plants, and the veldt near Lake Rukwa must be "sweet," because it is where game of all descriptions assemble for feeding during the dry season.

FOREIGN BODIES IN THE MOUTH, NOSTRIL, AND PHARYNX.

By F. T. HARVEY, F.R.C.V.S.,
St. Columb.

(1) Cow. She had exhibited some difficulty in breathing and swallowing for two days, The owner had administered drenches, had vigorously rubbed the throat and neck and applied mustard. The respiratory distress had increased considerably during the twelve hours preceding my visit. Temp., 105° F. A good deal of swelling around the throat and roaring respirations.

On examination, nothing was discovered in the mouth, but with the hand in the pharynx a foreign body was soon located in the upper part. It was a piece of wire about three inches long, and lying across the roof of the pharynx, both ends being buried in the tissues. It was withdrawn with comparative ease.

The breathing began to improve in about four hours, and in a few days the cow seemed none the worse.

(2) A mare four years old was reported as having something wrong with the tongue. On seeing the case, alveolar cellulitis was at once suspected, but a careful examination indicated that the tongue only was affected. The organ was protruded, swollen and very hard around the middle third. Symptoms had only been observed a few hours. A body was found almost buried in the dorsum of the tongue, towards the left of the middle third. It was carefully withdrawn and seen to be a stout needle, about two inches long. Recovery was complete in a few days.

(3) On a farm where the cattle are not seldom attacked with the ray fungus, we were requested to send medicine for "another case." At the end of a week no improvement was noticeable, so a request came to see the patient.

It was obviously a case of actinomycosis. Snuffling sound in breathing, nasal discharge, and both nostrils ulcerated. The muffle was involved and also the hard palate. Exploring the left nostril with the left forefinger, a sharp stabbing pain was immediately felt—a pricked finger. Presently a piece of bramble was withdrawn with the forceps. It was about four inches long, the barbs pointed towards the opening of the nostril and thus prevented the animal blowing out the twig during attacks of sneezing or similar efforts. Potassium iodide internally, with local applications of iodized phenol ended in the case recovering. Nothing happened to the finger for about three weeks. It then became painful, and congested around the seat of the puncture. The part was frequently dipped in tincture of iodine and ultimately the pain passed away and the inflammation disappeared.

It might be a question here as to whether the foreign body started the infection by wounding the tissues, or whether the animal rubbing its nose against the bush to allay itching, etc., already existing, had thus inadvertently introduced the bramble.

All three are commonplace cases, but they will illustrate the importance of a careful first examination, and that we should always be on the look-out for the unexpected. An overlooked or missed foreign body is always a potential disaster wherever it may be situated.

INTESTINAL CALCULUS.

By W. F. ASTON, M.R.C.V.S., Late Capt., R.A.V.C.
Ludlow.

On the night of April 2, I was called to attend a bay gelding, purchased at an Army sale, over twelve months previously. The horse had worked on a farm during that period, and at the time of his illness was out at grass, having feeds of corn on working days. My diagnosis was a simple impaction and gave stimulants and eserine. I was somewhat surprised to find no change in the morning. There were intervals of perfect relief, with an inclination to eat when permitted, complete constipation, no very violent pains and a strong pulse. After rectal explorations I failed to feel a stone, though suspected its presence. The patient's condition remained much the same for five days, when possibly as the result of copious enemata three times a day the bowels started to act. Uninterrupted recovery took place, and as I had diagnosed a calculus, I advised the owner to dispose of the horse. Being an honourable man, he preferrred to keep him. On July 29, I was again called to treat the horse, and profiting from past experience, gave sedatives, linseed oil and enemata. There were intervals of several hours during this illness when the patient appeared normal and would eat. There were no very violent pains or character-

istic attitudes. He failed considerably on the fourth day and died on the fifth.

Post-mortem revealed a mixed clinker calculus situate in the large colon. It was made up of hair, solids and crystals, and weighed fifty-three ounces. I was unable to find the nucleus. To my knowledge this is the eighth Army horse which has died as the result of calculi since the Armistice. This is possibly due to the dirty methods of feeding which the services necessitated. The average time allowed for the formation of a calculus is a year. I would suggest that this took considerably longer as calculi are relatively rare in farm horses.

AN HISTORICAL ROARER.

By FREDERICK HOBDAY, F.R.C.V.S.,
London.

In 1913, after the Olympia Show in London, a firm of Belgian horse dealers purchased a very fine-looking Irish hunter gelding, six years old, which had been entered in the jumping competition, but which was a bad roarer. It made such a noise, and seemed so distressed under the excitement of the show-ring, that it was not permitted to complete its exhibition. For this a sum of £65 was paid.

At their request I went over to Belgium and performed Williams' ventricle stripping operation on the throat, in consultation with a veterinary colleague there. The animal made an excellent recovery, and under the name of "National" won a good deal of money for his owner as a show jumper. In March, 1914, the horse was sold to a German buyer, who was purchasing for the Royal stables in Berlin, to which it was ultimately sold for £500, being purchased for Prince Eitel Fritz. I have been since informed that this horse was one of his favourite chargers during the late war.

Such was unwittingly my contribution to the German side!!!

IDIOSYNCRASY TO POTASSIUM IODIDE.

By P. MANUEL, M.R.C.V.S.
(*Crewe.*)

In treating actinomycosis with potassium iodide I have, on several occasions, met with cases of individual susceptibility to the drug, and as I have not recently seen anything written upon this subject, I thought that, perhaps, the following instance, which recently came under my notice, was worth recording.

The patient was a valuable pedigree Hereford bull, two years old, weighing 18 cwt., with an actinomycotic growth under the lower jaw. Two drachms of potassium iodide were administered twice a day.

On the fifth day the animal had a profuse watery nasal discharge, with desquamation of the cuticle over the whole body, but very marked where the skin was fine around the eyes, ears, flank and scrotum. I then prescribed half a drachm twice a day, and even this had to be stopped for a few days, as it produced iodism. The drug had the desired effect, but during its course of administration I found that it could not be given continuously, and that it was wise to stop it for three or four days and then recommence. Eventually the bull made a good recovery. The smallness of the dose in comparison with the huge size and weight of the beast struck me as worth placing on record.

A LARGE INTESTINAL CALCULUS IN A HORSE.

By JOHN B. WOLSTENHOLME, F.R.C.V.S.,
Manchester.

A HEAVY draught gelding was sent to the knackers and destroyed on August 7 on account of age and being worn.

A smooth calculus weighing twenty-six pounds was found in the colon. I purchased the horse, in May 1909, for a large firm, the horse was then five years old ; he has been under my supervision ever since. The horse has been very healthy, and *not* subject to colic.

The only peculiarity in his history was, that at intervals diarrhœa occurred from no known cause and the discharge was very fœtid. Doubtless the irritation of the calculus would have induced the trouble.

THE PREVENTION OF "CUTTING."

By CAPT. J. R. HODGKINS, D.S.O., F.R.C.V.S.,
Royal Army Veterinary Corps, Secunderabad, India.

A HORSE belonging to a cavalry regiment was brought to hospital for persistent cutting. He had a wound on the inside of the near fore fetlock, the size of a florin. Treatment commenced.

Ingenuity was exhausted in the attempt to correct the condition by the classical surgical shoes.

The following simple device solved the difficulty. A strap, an inch wide, was made, lined with numdah, and fastening with a buckle. When at work this was worn strapped tightly above the fetlock of the wounded leg. The wound is healed, the horse at work in the riding school, than which no harder test could be imposed.

The idea is based on that of M. Delpérier, who "used gaiters extending from the upper part of the coronet to below the knee, and found that, by tightly lacing these, the action of the limb was somewhat limited and that marked abduction occurred." The strap does not make the animal go lame.

Reference.—"Horseshoeing and the Horse's Foot," Dollar and Wheatley, page 291.

General Articles.

THE INDIAN CIVIL VETERINARY DEPARTMENT: A RETROSPECT AND A WARNING.

By "ANGLO-INDIAN."

FOR some time past we have heard rumours that there has been in recent years a great deal of discontent amongst the officers of the Indian Civil Veterinary Department in regard to their pay, conditions of service, etc., and we are now in a position to examine the truth of these rumours and place the facts before our readers, particularly those who may be contemplating joining this department. When the department was first turned into a civilian department in 1902, the pay offered ranged from Rs. 500 to an Inspector-Generalship on Rs. 1,800 per mensem, which, as things were then, was a very fair, but by no means excessive remuneration.

In 1912, however, when the Government of India were looking for a means of retrenchment in their expenditure, the post of Inspector-General was abolished. It is not necessary to discuss here whether this post is a necessary one or not, but the officers of the department who joined previous to 1912 had looked upon it as a highly-paid post to which they might aspire, and when it was removed, without any word of compensation, they naturally complained bitterly, and memorialised the Government of India in the matter.

The reply they received was that their memorials would be dealt with by the Royal Commission which had been appointed in the meantime to consider the necessity for revising the pay and conditions of all the Indian services.

When the report of this Commission was published, in 1916, it was found that the restoration of the post of Inspector-General was not recommended, but as some compensation for its loss it was suggested that a senior officer in each province should be appointed Veterinary Adviser to each local Government with a suitable allowance.

The recommendations of the Commission had then to be dealt with by the Government of India, and since the beginning of 1919 revised scales of pay for the different Indian services have been appearing, ending with the I. C. V. D., whose new scale was not sanctioned until September of this year.

We have before us the revised pay of all the important uncovenanted Indian services, and in considering these we must bear in mind the fact that between the time when the Commission sat and the appearance of most of these new scales of pay, occurred the war, with all its attendant increases in the cost of living, and Mr. Montagu's Reform

Scheme, by which a great number of the services are placed under Indian control, became law.

The most striking feature of these revised scales of pay is the great similarity in them all, up to a certain point, *i.e.*, they all begin at about Rs. 500 p. m. and proceed by an annual increment of Rs. 50 to about Rs. 1,750 p. m. after 25 years' service.

After that, all the services, except the I. C. V. D., contain administrative posts on pay varying from Rs. 2,000 to Rs. 3,000 p. m., to which their most successful officers will be appointed. We believe that in every service so far considered, other than the I. C. V. D., the initial pay has been raised. In 1902 the initial pay of an officer in the I. C. V. D. was Rs. 500 p. m. It is the same to-day under the revised (*sic*) scale of pay.

It was said that Rs. 500 p. m. was offered when the civilian department was first formed in order to attract sound and experienced members of the profession. If the converse is now required, the wishes of the Government of India should be easily complied with. A subaltern in the R.A.V.C. in India to-day draws Rs. 550 p. m., while one in the Indian Medical Service is given Rs. 650.

Under the new rules, officers of the I. C. V. S. will proceed by annual increments to Rs. 1,500 p. m., which they will reach in their twenty-first year of service, and after that 15 per cent. of them may be appointed to a selection grade which rises to Rs. 1,750 p. m.

As regards the recommendation of the Public Services Commission, that an Adviser to Government should be appointed in each province with a suitable allowance, the Government of India have fixed the allowance at Rs. 150 p. m., for officers who are appointed to the post when they have less than 15 years 'service, which we imagine will be very seldom. Officers of more than 15 years' service who are appointed to these posts will be placed in the selection grade and will draw no allowance. In other words, an officer in the I. C. V. D. now cannot draw a pay of more than Rs. 1,750 p. m., which is Rs. 50 a month less than was possible to him previous to 1912, and at least Rs. 500 a month less than the pay which will be drawn by the heads of the other departments in the country.

We note that private practice, for which the department has been asking for some time past in order to remove the stigma attaching to its prohibition when other officials in India are permitted to take it, is granted under certain conditions, but we understand that the concession is a negligible one from a monetary point of view, except in one or two large towns like Bombay and Calcutta. We consider that very little further comment is necessary. We have never heard of a worse case of ingratitude on the part of any employer than this.

The members of this department have had a great deal of pioneer work to do in setting up an efficient veterinary service in India, and, as will have been gathered from the reports from the different provinces in India which are reviewed in the English journals from time to time, the work has always been done with an inadequate European staff. We would strongly warn members of the profession from taking service under the Government of India while conditions remain as we have described them.

SOME OF THE SEQUELÆ OF NEURECTOMY.

By the Late Capt. ARTHUR ROUTLEDGE, F.R.C.V.S.
(*Louth.*)

Having the idea that the attendant risks of neurectomy are probably rather over, than under, estimated, I purpose dealing with a number of cases giving statistics relative to length of useful service, complications, and post-mortems, of subjects of the more commonly performed operations.

The cases still at work will be dealt with from date of operation to December 31, 1902 ; but for brevity's sake, dates of the other operations will be omitted, except in a few cases where the dates are deemed helpful.

The horses have all been at trotting work—the major proportion in double harness—neurectomy being resorted to in almost every case after the failure of other treatment to restore the horses to a degree of workable soundness : and in a few instances in lieu of the friendly poleaxe.

Preparation of Subject for Operation.

1. Withholding food and water for about 8 hours.

2. Clipping hair as short as possible from the field of operation ; scrubbing the parts thoroughly with Izal soft soap and water, containing creolin ; a bandage being applied where possible.

3. For the plantar operation limb rendered bloodless by Esmarch bandage and tourniquet.

4. All instruments, sutures, etc., boiled, immersed in 1-40 carbolic solution. Hartmann's wood wool used to mop up blood ; 1-500 chinosol solution used for operation wounds—with iodoform in addition for the median cases.

5. Horses cast on straw, chloroform administered by a Roalfe Cox muzzle, the quantity used being from 1½ oz. to 4 oz.—without cause for anxiety—the patients, with a few exceptions, going steadily under and being on their legs in from 5 to 15 minutes after completion of the operation.

I have no intention of entering into the *modus operandi* of the various cases, but have found by employing the above precautions that the plantar and posterior tibial wounds have usually healed by first intention, occasionally the ulnars, but a varying degree of suppuration has been the rule with the median wounds.

Diagnosis when attempted is entered and confirmed or otherwise by *post-mortem* examination where possible.

In some of the obscure cases valuable assistance in attempting to localise the cause of lameness has been obtained by an injection of 10 per cent. solution of cocaine.

All the horses kept shod in leathers to minimise the risk of picking up foreign bodies, and with the same object in view, indiscriminate paring and reduction of feet prohibited.

In some of the old standing cases, particularly of the plantar operations, there is a tendency to wear the heels of the shoes out, the gait being closely allied to that of some forms of chronic laminitis ; we have found considerable improvement to follow lowering of the horn at the heels, thinning the heels of the shoes and setting them slightly "on the roll."

The patients have from time to time been inspected and, except where otherwise stated, have not lost any working time from cause attributable to the subject matter of this paper.

Selection of subjects for operation leads to disappointments and surprises, the apparently "good subject" often breaking down early, while the "forlorn hope" may work on for years. We hope to prove that "laminitics" and those affected with corns are, above all others, bad subjects.

No. 1. *Brown mare.* Diagnosis: Navicular disease. Plantar both fore. Cast worn out. 434 days' case.

No. 2. *Cart horse.* Diagnosis: Navicular disease. Plantar both fore. December 21, 1899, January 20, 1900. Lame near fore after doing a few miles work. Resumed work February 4 ; continued till June 22. Killed. *Post-mortem:* Ulceration of wings of pedal bones, roughening of posterior surfaces. Exotoses both ossa coronæ. Old standing fracture of upper articular surface near os corona. 143 days' case.

No. 3. *Bay mare.* Diagnosis: Navicular disease. Plantar near fore. January 31, 1900, August 20, 1900. Lame near fore ; corn ; removed dead laminæ and fractured wing of pedal bone. Progressively worse. Killed. *Post-mortem:* Large sidebone inside heel, fractured and loose in tissues. Extensive ulceration, large bony growth upper edge of the navicular bone. 226 days' case.

No. 4 *Bay mare.* Diagnosis: Navicular disease. Plantar both

fore. February 7, 1900. Lame off fore during December; fissure in outside heel between sole and wall; removed a portion of necrotic laminæ and sole. Under treatment about a month, and resumed usual work. Cast slow and worn out. 603 days' case.

No. 5. *Bay horse.* Diagnosis: Ringbones. Plantar both fore. February 7, 1900. September 9, 1901. Lame at a trot, pain on pressure over nerve endings, which are much enlarged. Cast. 582 days' case.

No. 6. *Grey horse.* Diagnosis: Navicular disease. Plantar both fore. Became affected with megrims during hot weather. Cast. 541 days' case.

No. 7. *Bay horse.* Diagnosis: Navicular disease. Plantar both fore. Cast worn out. 880 days' case.

No. 8. *Dun horse.* Diagnosis: Navicular disease. Plantar both fore. Still at work. 1,027 days' case.

No. 9. *Roan mare.* Diagnosis: Navicular disease. Plantar both fore. March 22, 1900. March 31, off fore leg swollen, a little pus from operation wounds. Coronet burst at toe; progressively worse. Killed April 15. *Post-mortem:* Fracture of os pedis. Slight navicular disease. This mare, on removal of chloroform muzzle, became much excited and scrambled on to her legs. I think she must have fractured her pedal bone then as the degree of lameness prior to operation was inconsistent with the *p.-m.* appearances.

No. 10. *Bay mare.* Diagnosis: Ringbones. Plantar both fore. Still at work 1,007 days' case.

No. 11. *Bay horse.* Diagnosis: Navicular disease. Plantar both fore, April 11, 1900. October 13, 1901: Lame both fore; soles under-run with pus, especially near fore, in which the toe of pedal bone is exposed and necrotic. Killed. *Post-mortem:* Discolouration and roughening of navicular bones, necrosis of laminæ and solar edges pedal bones. 552 days' case.

No. 12. *Bay mare.* Diagnosis: ? Plantar both fore. Through a fall became permanently lame Near hind cast. 652 days' case.

No. 13. *Brown horse.* Diagnosis: Chronic foot lameness. Plantar both fore, May 9, 1900. September 20: While being shod farrier discovered sole of the off fore foot to be "dropped"; much under-run with pus. Killed. *Post-mortem:* Effusive laminitis, descent of pedal bone. 142 days' case.

No. 14. *Bay mare.* Diagnosis: Navicular disease. Plantar both fore. Killed. Result of open joint through tread. No *post-mortem.* 167 days' case.

No. 15. *Bay mare.* Diagnosis: ? Plantar both fore, May 17, 1900. September 1: Lame, suppurating corn, which eventually

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burst through the coronet. Killed. *Post-mortem:* Gangrene of laminæ in region of inner heel. Periostitis wing of the pedal bone. 113 days' case.

No. 16. *Cart horse.* Diagnosis: Ringbone. Plantar near fore. Cast worn out and lame. 721 days' case.

No. 17. *Grey mare.* During February, 1900, performed partial cartilage operation for quittor and though the foot made a splendid recovery she became permanently lame, after doing 10 days' work. Plantar near fore. May 31: Resumed work and fell lame off fore. Plantar off fore, September 26. May 25, 1901: Lame off fore; suppurating corn burst through the coronet when admitted to infirmary. Work, July 12. October 14, 1901: Lame near fore, farrier has inadvertently driven a nail into false quarter, a relic of quittor operation, causing suppuration. Resumed work 29th inst. December 16: Suppurating corn near fore. Work, 25th. From this date has been no further trouble. Still at work. 944 days' case.

No. 18. *Brown horse.* Diagnosis: ? *History:*—Intermittent lameness of six months; supposed to have "picked up a stone." With treatment became sufficiently sound on three occasions to do a few days' work; then fell most acutely lame again. Horse stands level, walks lame, trots dead lame, as though suppuration was taking place; foot large, sole inclined to be flat, with slight discolouration round the point of the frog; pain on percussion. Leg "clean." Plantar off fore. May 31, 1900. Still at work. 944 days' case.

No. 19. *Bay mare.* Diagnosis: Navicular disease. Plantar both fore: Still at work. 944 days' case.

No. 20. *Black horse.* Diagnosis: Navicular disease. Plantar both fore. May 31, 1900. November 22: Lame both fore, pain on pressure over operation wounds. Both coronets very sensitive to pin prick. Median both fore, 24th inst. After doing a few miles' work the gait resembled sub-acute laminitis; disappeared with rest. Cast unfit for trotting. 224 days' case.

No. 21. *Brown horse.* Diagnosis: Navicular disease. Plantar both fore. Became affected with grease. Cast. 322 days' case.

No. 22. *Bay horse.* Diagnosis: Ringbone. Plantar off fore. Died of contagious pneumonia. *Post-mortem:* Old standing fracture of upper articular surface os suffraginis. Exostoses anterior surface of bone, and of the os corona. 582 days' case.

No. 23. *Brown mare.* Diagnosis: Navicular disease. Plantar both fore. June 26, 1900. Eczema, off fore heel, commenced to lick affected part, killing skin for about extent of palm of hand. While under treatment, died of torsion of small intestine. 64 days' case.

No. 24. *Bay mare.* Diagnosis: Pedal ostitis. Plantar both fore.

July 26, 1900. September 3, After completing day's work had the appearance of an acute attack of laminitis. Killed. *Post-mortem:* Chronic inflammation of pedal bones; solar surfaces studded with pin head elevations. Navicular bones healthy. 44 days' case.

No. 25. *Black horse.* Diagnosis: Navicular disease. Plantar both fore, August 29, 1900. March 26, 1901: Lame near fore, limb swollen, toe turning up, hollow of heel, full. Killed. *Post-mortem:* Navicular fractured, slightly diseased; perforans tendon partially ruptured where it passes over the fractured bone. 220 days' case.

No. 26. *Roan mare. History:*—Under treatment six months for supposed shoulder lameness near fore; toe slightly dragged in trotting, the lameness, instead of abating, became very acute. One day, when sentence of death was about to be passed, to my utter surprise, the mare pulled out lame off fore. Plantar both fore (after an injection of cocaine, which made the mare trot soundly in 5 minutes). September 6, 1900: Contracted permanent sesamoid lameness near hind. Posterior tibiæ, March 27, 1901. No further trouble. Cast worn out, May 25, 1902. 630 days' case.

No. 27. *Black mare.* Diagnosis: ? Plantar both fore. September 6, 1900. March 26, 1901: Lame off fore; bony deposit round front of pastern. Much improved by rest. Cast unfit for trotting. 210 days' case.

No. 28. *Bay horse.* Diagnosis: Navicular disease. Median off fore. September 22, 1900. April 10, 1901: Lame, did not respond to treatment. External plantar. Still at work. 830 days' case.

No. 29. *Bay horse.* Diagnosis: Navicular disease. Plantar both fore. November 10, 1900. June 6, 1901. Lame near fore. Spr. subcarpal ligament. Median and ulna 8th inst. October 1, a piece of skin size of 5s. piece gnawed from site of inner plantar wound. Tied head up short and wound commenced to heal, but horse kept up the irritation by rubbing sore with other foot. Killed. *Post-mortem:* Discolouration and slight roughening of navicular bones. Exostosis upper edge of near bone. 333 days' case.

No. 30. *Brown mare.* Diagnosis: Sidebones. Plantar both fore. One day, while at work, mare commenced to bleed from the off coronet. Hoof separated from coronary band for about two inches. A probe could be passed down laminæ to the toe. Sole under-run with pus. Killed. *Post-mortem:* Hoof changes seemed to be due to laminitis necrosis of laminæ and toe of pedal bone. 242 days' case.

No. 31. *Black mare.* Diagnosis: ? Median off fore. Still at work. 770 days' case.

No. 32. *Cart mare.* Diagnosis: Navicular disease. Plantar both fore. Still at work. 781 days' case.

No. 33. *Bay mare.* Diagnosis: Ringbones. Plantar both fore. Bony deposits increased in size; mare had to have a few days' rest from time to time. Cast unfit for trotting. 274 days' case.

No. 34. *Bay mare.* Diagnosis: Navicular disease. Median off fore. Pricked in shoeing. Killed. *Post-mortem:* Removed horn from outer quarter, found a necrotic plate of laminal surface of pedal bone. Well-marked navicular disease. 91 days' case.

No. 35. *Bay mare.* Diagnosis: Navicular disease. Plantar both fore. December 31, 1900. April, 1901: Inveterate "stumbler." cast. 158 days' case.

No. 36. *Cart mare. History:* Periodically lame off fore, hoof much contracted, well-marked rings at heels. Leg free from disease. Plantar off fore. December 11, 1900. May, 1902. Lame, diffused bony growth pastern. Sound at work. Cast. 520 days' case.

No. 37. *Bay horse.* Diagnosis: Ringbone. Median near fore. Died azoturia away from home; no *post-mortem.* 615 days' case.

No. 38. *Bay horse.* Diagnosis: Ringbone. Median off fore. Became confirmed crib biter; very thin and subject of colic in consequence. Cast. 618 days' case.

No. 39. *Bay mare.* Diagnosis: Ostitis fetlock. Median off fore. Still at work. 749 days' case.

No. 40. *Roan mare.* Diagnosis: Ostitis fetlock. Median near fore. Still at work. 725 days' case.

No. 41. *Cart horse.* Diagnosis: Ostitis fetlock. Median near fore. January 19, 1901. Lame from same condition. Median off fore. May 1, 1901: Still at work. 711 days' case.

No. 42. *Bay mare.* Diagnosis: Navicular disease. Plantar both fore. January 19, 1901. May 25, 1901: Suppurating corn burst through coronet. Work June 10. No further trouble with foot. Died pleurisy. *Post-mortem:* Navicular bones diseased. 259 days' case.

No. 43. *Bay horse.* Diagnosis: ? Plantar both fore. January 19, 1901. April, 1902: Bad corn each foot. Cast. 103 days' case.

No. 44. *Bay mare.* Diagnosis: ? *History:* Lame from time to time, no assignable cause. Median off fore, January 20, 1901. Killed September 20, 1902. *Post-mortem:* Large slough of coronary band inside heel, wing of pedal bone necrotic, abscess containing about 2 oz. pus behind the lateral cartilage. Navicular bone diseased. 607 days' case.

No. 45. *Bay mare.* Diagnosis: Navicular disease. Plantar both fore. Cast for "bent fore legs." 598 days' case.

No. 46. *Cart horse.* Diagnosis: ? Median near fore. Cast for "bent fore legs." 172 days' case.

No. 47. *Bay mare.* Diagnosis: Navicular disease. Plantar off fore. While at work fell most violently lame; had to be "ambulanced" home. Killed. *Post-mortem:* Flexor perforans tendon at level of pastern ruptured. Well-marked navicular disease. 660 days' case.

No. 48. *Black mare. History:* While under treatment for canker near hind developed lameness off fore. Median off fore. January 20, 1901. Canker broke out again. Cast. 116 days' case.

No. 49. *Cart mare.* Diagnosis: Navicular disease. Plantar near fore. Cast for "bent fore legs." 335 days' case.

No. 50. *Bay mare.* Diagnosis: Ostitis fetlock. Median near fore. Still at work. 697 days' case.

No. 51. *Roan mare.* Diagnosis: Chronic sprain of flexor tendons, and navicular disease. *History:* Fired and blistered three months ago. Present symptoms are, chronic thickening of tendons, no pain on pressure, lameness most marked off fore (the foot continually rested). Median both fore. Ulna off fore. February 9, 1901. July 2: Lame off fore; coronet bulging round toe. Similar case and *post-mortem* to *No.* 30. 143 days' case.

No. 52. *Roan horse.* Diagnosis: Sprained flexor tendons. Median February 9, 1901. Became sound and fell lame at exercise. Ulna, March 12. April 6, 1902: Subject of a severe attack of colic, injured the off fetlock joint. From this date onwards, if allowed, would "gnaw" joint and inside of leg. Cast. 529 days' case.

No. 53. *Cart horse.* Diagnosis: Navicular disease. Plantar off fore. Still at work. 690 days' case.

No. 54. *Bay mare. History:* Very severe cracked heel off hind; when recovered was lame off fore. Sound after cocaine injection over plantar nerves. Probably navicular disease. Plantar off fore. February 15, 1901. January 18, 1902: Suppurating corn off fore, removed necrotic wing of pedal bone. 20th: Suppurating corn near fore. Resumed work February 19, but continued to be lame at times near fore. Cast. 552 days' case.

No. 55. *Black horse.* Diagnosis: Ostitis fetlocks. Median both fore. February 15, 1901. After a few days' work fell lame off fore. Ulna. March 3. June, 1902: Has contracted a habit when in the stable of rubbing the off fore foot up and down the near fore, causing the in contact horn to be quite smooth. Still at work. 685 days' case.

No. 56. *Grey mare.* Diagnosis: Chronic sprained flexor tendons. Median both fore. February 16, 1901. March 20, 1901: Lame again off fore, Ulna. 23rd inst. Still at work. 685 days' case.

No. 57. *Black horse.* Diagnosis: Navicular disease. Plantar both fore. March 2, 1901 September 28, 1901: Lame near fore, no apparent cause. The head of the os corona off fore shows a bony

deposit about the size of a walnut ; strong ridge of horn running down the centre of foot from coronet to toe. Cast, unfit for trotting.
251 days' case.

No. 58. *Black mare.* Diagnosis : Chronic sp. flexor tendons. Median off fore. March 2, 1901. This mare was most difficult to chloroform, and continued, in spite of the administration of 6 oz. chloroform, in a state of excitement, doing an imaginative broadside gallop during the whole operation. Severed the posterior radial artery in mistake for median nerve. Applied tourniquet with difficulty above operation wound, and completed operation, tightly suturing wound up. There was great subsequent swelling of limb and loss of the power of extension, toe being dragged along the ground in walking. Resumed work April 1. Still at work. 669 days' case.

No. 59. *Grey mare.* Diagnosis : Navicular disease. Plantar near fore. March 12, 1901. Still at work. 659 days' case.

No. 60. *Black mare.* Diagnosis : Ostitis fetlock ? Fairly well marked diffuse swelling over the inner head of os suffraginis. Mare continually points. Plantar off fore. March 12, 1901. July 7 : Badly " pricked." Killed. *Post-mortem :* Sole from outside quarter to toe much under-run with pus, laminæ and sensitive sole of jelly-like consistency, edge of pedal bone necrotic. No evidence of disease of the os suffraginis. 114 days' case.

A comparison of the 60 consecutive cases gives :—

Average work : 1 year, 16 weeks, 4 days.

SALES :—

1. 10 in connection with neurectomy 1 year. average life
2. 13 for other causes .. .. 1 year, 15 weeks. „ „

23 sales. Average life .. .. 1 year, 10 weeks.

KILLED :—

1. 16 in connection with neurectomy 34 weeks average life.

DIED :—

1. 4 Causes other than neurectomy 1 year, 2 weeks „ „

STILL WORKING :—

1. 17 cases. Average life : 2 years, 9 weeks, 2 days.

The following are the conclusions :—

1. The close degree of gravity from subsequent serious sequelæ existing between the plantar, and median and ulna, operations.

2. The slight risk following the median operation ; as no horses were cast or killed for causes attributable in any way to the operation.

3. That unnerved horses can, and do have, serious foot troubles, calculated to cause anxiety in feet, and yet make useful recovery.

4. That the most serious cause of failure occurred where the horse had had laminitis ; five having to be killed for that disease, with the low average life of 32 weeks. Therefore in the selection of subjects for operation, those having any suggestion of laminitis should above all others be avoided.

SUMMARY OF 60 CONSECUTIVE OPERATIONS

No.	Operation.	Days Worked.	Result.
1	Plantar both fore ...	434	Cast. Worn out.
2	,, ,, ,, ...	143	Killed. *Post-mortem :* Ringbone.
3	,, near fore ...	226	Killed. *Post-mortem :* Fractured pedal bone.
4	,, both fore ...	603	Cast. Worn out.
5	,, ,, ,, ...	582	Cast. Neuroma.
6	,, ,, ,, ...	541	Cast. Megrims.
7	,, ,, ,, ...	880	Cast. Worn out.
8	,, ,, ,, ...	1027	Still working.
9	,, ,, ,, ...	Nil.	Killed. *Post-mortem :* Fractured pedal bone.
10	,, ,, ,, ...	1007	Still working.
11	,, ,, ,, ...	552	Killed. *Post-mortem :* Laminitis.
12	,, ,, ,, ...	652	Cast. Lame near hind.
13	,, ,, ,, ...	142	Killed. *Post-mortem :* Laminitis.
14	,, ,, ,, ...	167	Killed. (Tread). No *post-mortem*.
15	,, ,, ,, ...	113	Killed. Corn.
16	,, near fore ...	721	Cast. Tendon trouble.
17	,, both fore ...	944	Still working.
18	,, off fore ...	944	Still working.
19	,, both fore ...	944	Still working.
20	Median ,, ,, ...	224	Cast. Tendon trouble.
21	Plantar both fore ...	322	Cast. Grease.
22	,, off fore ...	582	Died of contagious pneumonia.
23	,, both fore ...	64	Died. Twisted small intestine.
24	,, ,, ,, ...	44	Killed. *Post-mortem :* Laminitis.
25	,, ,, ,, ...	220	Killed. *Post-mortem :* Fractured navicular.
26	Post tibial, near hind.	630	Cast. Worn out.
27	Plantar both fore ...	210	Cast. Ringbone.
	Median off fore ...		
28	Ext. plantar ...	830	Still working.
	Plantar both fore ...		
29	Median and Ulna near—fore	333	Killed. Gnawed leg.
30	Plantar both fore ...	242	Killed. Laminitis.
31	Median off fore ...	770	Still working.
32	Plantar both fore ...	781	Still working.
33	,, ,, ,, ...	274	Cast. Ringbone.
34	Median off fore ...	91	Killed. Pricked.
35	Plantar both fore ...	158	Cast. Stumbling.
36	,, off fore ...	520	Cast. Ringbone.
37	Median near fore ...	615	Died. Azoturia.
38	,, off fore ...	618	Cast. Crib-biter.
39	,, ,, ,, ...	749	Still working.
40	,, near fore ...	725	Still working.
41	,, both fore ...	711	Still working.
42	Plantar both fore ...	259	Died. Pleurisy.
43	,, ,, ,, ...	103	Cast. Corns.
44	Median off fore ...	607	Killed. Slough.
45	Plantar both fore ...	598	Cast. Bent legs.
46	Median near fore ...	172	Cast. Bent legs.
47	Plantar off fore ...	660	Killed. Ruptured tendon.

No.	Operation.	Days Worked.	Result
48	Median off fore ...	116	Cast. Canker near hind foot.
49	Plantar near fore ...	335	Cast. Bent legs.
50	Median near fore ...	697	Still working.
	Ulna off fore ...		
51	Median both fore ...	143	Killed. *Post-mortem :* Laminitis.
52	Median and ulna off fore	529	Cast. Gnawed leg.
53	Plantar off fore ...	690	Still working.
54	,, ,, ,, ...	552	Cast. Corn near fore.
	Median both fore ...		
55	Ulna off fore ...	685	Still working.
	Median both fore ...		
56	Ulna off fore ...	685	Still working.
57	Plantar both fore ...	251	Cast. Ringbone
58	Median off fore ...	669	Still working.
59	Plantar near fore ...	659	Still working.
60	,, off fore ...	114	Killed. Pricked.

Abstracts.

LOSS OF ANIMALS IN THE WAR.

It will be of interest to cavalry officers and others who had charge of animals during the war to know that the losses are the smallest percentage recorded for any campaign. This speaks well for the horsemastership when it is remembered that many men had charge of animals who had never done so before. Four hundred and eighty-four thousand, one hundred and forty-three animals lost their lives, including 5,589 lost at sea through enemy action. This works out at less than 15 per cent. per year of the total number of animals on service. This is an extraordinarily low percentage when we think what they had to go through. Camels were the chief offenders in dying. In Mesopotamia, in the last year of the war, 86.52 per cent. of the camels on service died. We do not know whether this return includes the loss of animals prior to being sent overseas. If not, it would be of interest to know the loss at the depots at home and abroad.

As regards the loss of camels in Mesopotamia, they are very different from horses, and require special knowledge to keep them fit and well. We know that many of the officers and men had never seen a camel before, except, perhaps, at the Zoo, which accounts, in all probability, for the high percentage of deaths. The campaign in Mesopotamia was what we may call a side show to the events that were happening elsewhere. If it had not been, more people would realise the hard work, the bad climate, and the hard fighting our troops had to overcome. It is the only place, except Palestine, where we have heard of trenches being charged by cavalry with success. This report speaks well for our Veterinary Department, a department that does a lot of hard work and is very seldom mentioned or thought of except by people in touch with it, who fully appreciate its work.—(From Editorial Sporting Notes, *Cavalry Journal.*)

ABSTRACT FROM THE REPORT OF THE COMMITTEE APPOINTED BY THE SECRETARY OF STATE FOR THE COLONIES TO CONSIDER THE STAFFING OF THE VETERINARY DEPARTMENTS IN THE COLONIES AND PROTECTORATES.

(*Continued from last Issue.*)

A complete Report can be obtained at H.M. Stationery Office, Kingsway W.C. Price 2d.

APPENDIX SHOWING PRESENT STAFFS AND SALARIES.

East Africa Protectorate.

Staff.	*Present Salary.*
1 Chief Veterinary Officer ...	£600—£25—£700+£60 duty pay (+ war bonus).
1 Deputy Chief Veterinary Officer.	£500—£20—£600+£50 duty pay (+ war bonus).
14 Veterinary Officers	£400—£20—£500 (+ war bonus).
1 Veterinary Pathologist	£500—£25—£600+£50 duty pay (+ war bonus).
1 Assistant to „	£400—£20—£500 (+ war bonus).
1 Senior Research Officer ...	£500—£25—£700 (+ war bonus).
1 Junior „ „	£400—£25—£500 (+ war bonus).
19 Stock Inspectors	£200—£15—£245 (+ war bonus).
1 Laboratory Superintendent ...	£300—£15—£400 (+ war bonus).
2 European Laboratory Assistants	£200—£10—£250 (+ war bonus).
2 „ „ „	£160—£10—£180 (+ war bonus).
2 Lay Field Assistants	£180—£10—£200 (+ war bonus).
1 Registrar of Brands	£200 (+ war bonus).
1 Permit Officer	£300 (+ war bonus).

Veterinary Establishments.

Uganda.

Staff.	*Present Salary.*
1 Chief Veterinary Officer ...	£500—£25—£600+£50 duty pay (+ war bonus).
4 Veterinary Officers	£400—£20—£500 (+ war bonus).
3 Stock Inspectors...	£200—£10—£250 (+ war bonus).

N.B.—For special measures against rinderpest and pleuro-pneumonia a temporary addition of 6 Veterinary Officers and 18 Stock Inspectors is contemplated.

Zanzibar.

1 Veterinary Officer(Non-European) Rs. 1,800—Rs. 120—Rs. 2,400.

Nyasaland.

1 Chief Veterinary Officer ... £500—£25—£600+£50 duty pay (+ war bonus).

2 Veterinary Officers ... ... £400—£20—£500 (+ war bonus).

[N.B.—War Bonus is at the following rates :—

Salary.	*If Married.*	*If Unmarried.*
Up to £199	£120 ...	£70
£200 „ £299	£115 ...	£65
£300 „ £399	£110 ...	£60
£400 „ £499	£105	£55
£500 „ £599	£100 ...	£50
£600 „ £699	£95 ...	£45
£700 and upwards	£90 ...	£40]

Gold Coast.

1 Veterinary Officer ... ...£450 + £90 duty pay. War bonus £120 a year.

Sierra Leone and the Gambia.

No Veterinary Officers.

VETERINARY APPOINTMENTS IN CEYLON.
(Taken from Ceylon Estimates 1919-1920.)

Name of Post.	*Salary.*
1 Government Veterinary Surgeon ...	Rs. 5,625—Rs. 281·25—Rs 7,875.
4 Assistant Veterinary Surgeons... ...	Rs. 3,000.
20 Stock Inspectors (Singhalese and Indian).	Rs. 540 to Rs. 1,800.

These salaries have a temporary bonus as follows :—

Under Rs. 4,500	20 per cent.
Under Rs. 7,500	£90 per annum.
Under Rs. 11,250	£80 per annum.

VETERINARY APPOINTMENTS IN MAURITIUS.

1 Veterinary Surgeon ... ... Rs. 6,000.

A temporary allocation of 20 per cent. is being made on this salary.

VETERINARY APPOINTMENTS HELD BY EUROPEANS IN STRAITS SETTLEMENTS AND FEDERATED MALAY STATES

(a) *Straits Settlements.*

Three Veterinary Surgeons with salary at $350—15A—$650 per month, with and Efficiency Bar at $600 (= £490—21A—£910 per annum, with Efficiency Bar at £700).

(b) *Federated Malay States.*

Five Veterinary Surgeons with salary as above

MINIMUM VETERINARY FEES IN BERLIN.

AT a time like the present, when the question of fees and finance is urgently before us in England, it is interesting to note what the Veterinary Association in Berlin has published on the same subject.

The following rates may be increased, but not diminished; they are the *minimum* rate of fees which has been agreed upon :—

	Marks.
1. Consultation by telephone	3
„ by letter	6
„ at home	5
2. Visit by day to one animal	10
For each subsequent one on the same occasion ..	3
Evening visit (7 p.m. to 10 p.m.)	15
Night visit (10 p.m. to 8 a.m.)	20
(Exclusive of the cost of transport).	
Visit on fete days (8 a.m. to 1 p.m.)	15
„ „ (1 p.m. to 11 p.m.)	20
Urgent visit, or at an appointed time, 50 per cent. more.	
3. Additional Charges :—	
Bandage	3
Subcutaneous injection	3
Intra-venous or intra tracheal	6
Injection Enema of a large quantity of fluid	20
Rasping teeth	10
Slight operation (abscess lancing, etc., suturing wound)	5
Major operation (without casting)	30
„ (if necessary to cast)	50
Removal of afterbirth	20

Parturition, depending upon the mal-presentation and the value of the animal	20
4. Various fees :—	
Visit with short certificate (rabies, etc.)	10
An ordinary certificate	10
Special certificate in detail	30
Post-mortem of fowls or rabbits (each one)	5
„ goat	10
„ larger animals	20
Short written report (additional)	5
Full, written post-mortem certificate (first case) ..	20
If any others, for each	10
Opinion as to purchase (first animal)	20
If any others, for each	10
If purchased, in addition, 1 per cent. of the price paid, exclusive of the visiting fee.	
An ordinary microscopical examination	5
Report of same	5
Research of ordinary difficulty	20

Review.

VETERINARY DOSES AND PRESCRIPTION WRITING. By PIERRE A. FISH, D.Sc., D.V.M., Professor of Veterinary Physiology, New York State Veterinary College, Cornell University. Fifth Edition. Price $1 50 cents. Published by Cornstock Publishing Co., Ithaca, New York.

THIS is a handy little book of 176 pages, bound in a serviceable flexible cover. That it has gone into five editions is sufficient evidence as to its utility and value. It contains a very full list of drugs and their doses, and we are glad to see hypodermic medication referred to in the following words :—" Hypodermics of alkaloids are given usually at *one half* the dose by mouth." Hypodermic injections as therapeutic remedies are frequently overlooked in our pharmacopæia handbooks. By the bye, we know of one or two text-books that give the subcutaneous dose at one-tenth of the oral dose. Surely it is time that hypodermic medication and local anæsthesia had a few plain and simple lines to themselves in all posological text-books. There is a pretty full list of drugs which when given by the mouth are excreted by the mammary gland, but formalin does not appear. It is a notable omission, especially as the fact of its elimination in the milk, when given orally, has made it a first-rate remedy in the treatment of mammitis. It is interesting to note that the duration of pregnancy in the camel is given as forty-five weeks, the zebra thirteen months, and the elephant twenty-four months. Can any of our foreign members explain why the zebra retains its young longer than the mare, or why it takes the fœtus longer to reach

maturity ? There are eight useful little pages of examples of incompatibility in prescriptions. The danger of mixing liq. ferri chlor., pot. chlor. and glycerine is noted. A commoner danger, and one that is liable to occur in a busy practice where pupils may abound, arises from the pounding together of pot. chlor. and flowers of sulphur. Quite an acceptable little section of the book deals with " therapeutic terms " and " terminations of medical terms."

The volume is a reliable and complete guide for the veterinarian and student, and we have no doubt that the fifth edition will soon be exhausted. G. M.

PETITION FROM THE MEMBERS OF THE INDIAN CIVIL VETERINARY DEPARTMENT TO THE SECRETARY OF STATE FOR INDIA.

To

THE RIGHT HONOURABLE
MR. E. S. MONTAGUE, M.P.,
His Majesty's Secretary of State for India.

The Humble Memorial of.....
....., a member of the Indian Civil Veterinary Department.

RESPECTFULLY SHEWETH :—

1. Your memorialist requests your consideration of the revised scale of pay and emoluments of the Indian Civil Veterinary Department as laid down in the advertisement in the *Veterinary Record* of 12th June, 1920, a true copy of which is attached.

2. Your memorialist humbly begs to draw your attention to the disproportion between the amount of the benefit in his case and the magnitude of the condition, to wit the general increase in the cost of living, which it is intended to remedy.

In the case of your memorialist who has years seniority the net gain only amounts to Rs. per month a percentage of as opposed to an all round increase in the cost of commodities of at least 150 per cent.

3. Your memorialist also begs to draw your attention to the permission to practise privately.

Such permission is conditional, and can only apply to a minority of officers of the Department—in any case it is a concession of negligible value.

4. It was thought by your memorialist that he would not be sent out to take up the duties and responsibilities of an officer of the Indian Civil Veterinary Department without at least receiving a living wage,

but while in India he has found his salary on the present scale of pay wholly inadequate.

However, an increase commensurate with the present day cost of living was patiently hoped for on the revision of the scale of pay of the Department.

5. Your memorialist is regretfully compelled to recognise that the revised scale of pay as represented in the accompanying advertisement contains no real amelioration of his case.

6. As your memorialist's present existence under a burden of financial difficulties is so harassing, he humbly prays that you will recommend to the proper authority—

(a) That in the revised scale of pay the commencing salary of officers of the Department should be Rs. 650/– a month rising by annual increment of Rs. 100/– a month to Rs. 2,500/– a month.

(b) That pending decision on the above points, your memorialist should receive an immediate allowance of Rs. 250/– a month, dating back to the time of his landing in India as some relief to his present distress.

7. That in the event of it being found impossible to concede this further revision of the scale of pay, your memorialist humbly prays.

(a) That the refund of the outward passage money be fore-gone.

(b) That a first-class return passage be provided.

(c) That a sum of money equivalent to three months' salary be granted as some solatium for time wasted and opportunities lost in the selection of a career.

Confidently trusting in your sympathetic consideration for the welfare of the loyal servants of His Majesty's Government, your memorialist as in duty bound, will ever pray.

Your most humble
and
obedient servant,

Dated 12th August, 1920.

Copy from page 11 *of "Veterinary Record" of 12th June*, 1920.

INDIAN CIVIL VETERINARY DEPARTMENT.

THE Secretary of State for India proposes to make one or more appointments to the Indian Civil Veterinary Department this summer if so many *qualified candidates* are available.

Preference will be given to candidates who served in His Majesty's Forces. Candidates must possess a diploma from the Royal College of Veterinary Surgeons, evidence of a knowledge of bacteriology and of

capacity for carrying out original research will be specially taken into account in estimating the claims of candidates.

Pay Rs. 500/- a month rising by annual increments of Rs. 50/- a month to Rs. 1,500/- a month, with selection posts on Rs. 1,500/- a month rising to Rs. 1,750/- a month. Candidates who have served in His Majesty's Forces for a year or more will receive a higher initial pay.

Private practice may be allowed subject to the certain conditions. Full particulars of appointment and forms of application can be obtained from the Secretary, Revenue Department, India Office, London, S.W.1.

Personal.

COLONEL STORDY, C.B.E., D.S.O., who was, until recently, the Chief Veterinary Officer to the British East African Protectorate, is at present in Peru, where he is carrying out some valuable investigations regarding the improvements in the breeding of the Alpaca sheep for their wool ; and a quantity of material sent home to the University of Leeds has attracted considerable attention in the manufacturing world of that city. The Alpaca produces a quantity of naturally-coloured wools ranging from almost white, through blue-grey, fawn, and orange, to dark brown, and as these colours are " fast " they are likely to be much sought after by spinners and manufacturers who are in search of " natural " shades.

Our contemporary, the *Yorkshire Observer*, has a long article upon the subject, written by two well-known scientists of the University of Leeds, and from their remarks it seems possible that the scientific observations of our colleague, Colonel Stordy, are likely to open up a great commercial field which has never yet been approached on a truly scientific basis.

NOTICES.

All communications should be addressed to 8, Henrietta Street, Covent Garden, London, W.C.2. Telephone : Gerrard 4646. Telegrams : " Baillièrt Rand, London."

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